AMENDMENT AND RESPONSE UNDER 37 CFR § 1.116
Serial Number: 10/606,659
Filing Date: June 25, 2003
Title: Two-phase Hash Value Matching Technique In Message Protection Systems

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REMARKS

Applicant has carefully reviewed and considered the Office Action mailed on <u>August 21, 2007</u>, and the reference cited therewith.

Claims <u>17 and 30</u> are amended, claims <u>2-3, 7, 11, 13, 18, 20, 23, and 26-29</u> are canceled, and claims 37-43 are added; as a result, claims <u>1, 4-6, 8-10, 12, 14-17, 19, 21-22, 24-25, and 30-43</u> are now pending in this Application, of which claims 1, 12, 17, and 36 are independent.

Claim 17 has been amended to recite that the system is "embodied on a computer-readable medium encoded with a data-structure." This amendment finds support, for example, in original claim 12.

Newly added claims 37, 39, 41, and 43 recite that the ROHV is determined "based on a hash value of a first portion of the object." This finds support, for example, on page 20, lines 10-12 of the specification.

Newly added claims 38, 40, 42, and 43 recite that the SSHV is determined "SSHV is determined based on a Message Digest -5, a Secure Hash Algorithm, or a Secure Hash Standard." This finds support, for example, on page 20, lines 1-18 of the specification.

Claim 30 has been amended to change "hash second value" to "third hash value".

§ 101 REJECTIONS

Claims 17-25 were rejected under 35 U.S.C. § 101 as being directed to non-statutory subject matter on the ground that software is non-statutory subject matter. Claim 17 has been amended to recite: "A system embodied on a computer-readable medium encoded with a data-structure". Applicant respectfully submits that this amended claim recites sufficient structural interrelationships to constitute statutory subject matter in accordance with MPEP § 2106.01(I), which provides: "a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory." Therefore, Applicant respectfully requests that the rejection of claim 17 be withdrawn.

Claims 19, 21-22, and 24-25, which depend on claim 17, recite patentable subject matter for the same reasons as claim 17, and Applicant respectfully requests that the rejections of these claims be withdrawn.

§ 112 REJECTIONS

Claims 4, 5, 14, 15, 21, 24, and 36 were rejected under 35 U.S.C. § 112, second paragraph. The Office Action dated August 21, 2007, asserts that these claims are incomplete for omitting essential elements because the claims omit the steps required to perform a "rough outline hash value" and a "sophisticated signature hash value."

The specification, on page 20, lines 9-14, describes *examples* of how to produce a rough outline hash value (ROHV): "The ROHV is typically determined based on a simple technique that only requires a simple computation. For example, the ROHV of an object may be determined from a hash value (such as an XOR) hash of the first few bytes or any portion of a file. The ROHV may also be determined using simple parameters like the object size and the like. The ROHV enables message tracker 527 to roughly distinguish one object from other objects." However the specification does not describe these examples as "essential" or the only way to produce a ROHV.

Similarly, the specification, on page 20, lines 16-20, describes *examples* of how to produce a sophisticated signature hash value (SSHV): "An SSHV is typically determined based on a sophisticated hash function, such as Message Digest -5 (MD-5), Secure Hash Algorithm (SHA), Secure Hash Standard, and the like. The values may also be determined based on a public key certificate, a digital signature, a checksum function, or similar algorithmic mechanism that provides a value that distinguishes one object from other objects." Again, the specification does not describe these examples as "essential" or the only way to produce a SSHV.

MPEP § 2172.01 provides that "[a] claim which omits matter *disclosed to be essential to the invention* as described in the specification or in other statements of record may be rejected under 35 U.S.C. 112, first paragraph, as not enabling" (emphasis added). As discussed above, the specification does not describe the steps for performing the ROHV or SSHV as "essential." Therefore, applicant respectfully requests that the rejections of claims 4, 5, 14, 15, 21, and 24 be withdrawn.

Claim 30 was rejected on the ground that there was insufficient antecedent basis for "hash second value." Applicant respectfully submits that the amendment to claim 30 obviates this rejection, and requests that this rejection be withdrawn.

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§ 102/103 REJECTIONS

Claims 1, 4-6, 8-10, 12, 14-17, 19, 21-22, 24-25, and 30-36 were rejected under 35 U.S.C. § 102(b) as being anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as obvious over <u>Chen et al.</u>, U.S. Patent No. 5,960,170. Applicant respectfully submits that <u>Chen</u> does not disclose or render the elements of these claims obvious.

The Office Action dated August 21, 2007, cites column 1, lines 35-38 of <u>Chen</u> as supporting the proposition that "[i]t is well known in the art that virus signatures or strings are hashes that uniquely specify a virus." However, this portion of <u>Chen</u> makes no disclosure regarding hashes. Therefore, the Office Action has cited no evidence disclosing hashes as recited in independent claims 1, 12, 17, and 36, and Applicant respectfully requests that the rejections of the pending claims be withdrawn.

Applicant further submits that the rejections of claims 4, 5, 14, 15, 21, 24, and 36 should be withdrawn because the Office Action has not cited any evidence disclosing a ROHV or SSHV. Applicant further submits that newly added claims 37-43 should be allowed for the same reason.

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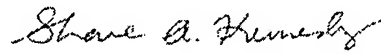
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CONCLUSION

Applicant respectfully submits that the claims are in condition for allowance and notification to that effect is earnestly requested. The Examiner is invited to telephone Applicant's attorney (208-286-1013) to facilitate prosecution of this application.

If necessary, please charge any additional fees or credit overpayment to Deposit Account No. 50-3521

Respectfully submitted,

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Date: Novmeber 21, 2007

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